

AMENDMENTS TO THE CLAIMS

1. (Original) A scanning probe microscope comprising:
a cantilever;
a light-emitting section; and
a light-receiving section,
the light-emitting section comprising a light emitting element and an input waveguide,
wherein the input waveguide irradiates light from the light-emitting section towards
the surface of the cantilever, the light receiving section comprising an output waveguide and
a light-receiving element, and the output waveguide guides light reflected by the surface
towards the light-receiving element.
2. (Original) The scanning probe microscope as disclosed in Claim 1, wherein
the input waveguide and the output waveguide are both made of optical fiber.
3. (Currently amended) The scanning probe microscope as disclosed in ~~either~~
~~one of Claim 1 or claim 2~~, wherein the output waveguide is made of a plurality of optical
fibers.
4. (Original) The scanning probe microscope as disclosed in Claim 3, wherein
substantially spherical-shaped lenses for focusing light reflected from the cantilever onto the
plurality of optical fibers are arranged at the ends of the plurality of optical fibers, and each
set of lenses are taken to have substantially flat facing surfaces and be next to each other.
5. (Currently amended) The scanning probe microscope as disclosed in ~~any one~~
~~of claims 1 to 4~~ Claim 1, wherein a tip probe is fitted at an end of the cantilever.
6. (Currently amended) The scanning probe microscope as disclosed in ~~any one~~
~~of claims 1 to 5~~ Claim 1, wherein the light-emitting element is a laser diode.
7. (Currently amended) The scanning probe microscope as disclosed in ~~any one~~
~~of claims 1 to 6~~ Claim 1, wherein the light-receiving element is a photodiode.